AIRCRAFT ACCIDENT REPORT
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SPECIAL HANDLING REQUIRED in accordance with Para. 66, OPNAV INSTRUCTION 3750.6, effective edition

OPNAV REPORT 3750-1

PART I GENERAL

SECTION A. IDENTIFICATION

1. AIRCRAFT ACCIDENT BOARD APPOINTED BY	2. SERIAL NO.	3. DTG (LOCAL) OF MISHAP	4. MODEL AIRCRAFT	5. BUREAU NUMBER
Commanding Officer VP-6	1-68A	050120I / 1 APR	P3A	151350

6. TO:	9. LOCATION OF MISHAP	10. DAMAGE
Commander, Naval Aviation Safety Center	27-06N 130-02E	ALFA

7. VIA:	8.	11. TIME OF DAY	12. TIME IN FLIGHT	13. FLIGHT CODE
COMPATFORSEVENTHFLT COMSEVENTHFLT COMFAIRWINGSPAC COMNAVAIRPAC		NIGHT	1+31	3A8

14. CLEARED FROM: NAHA AFB TO COORDINATES 27-05N 130-00E

15. TYPE CLEARANCE	16. AIRSPEED	17. A/C WEIGHT
IFR/DVFR	190 "P"	100,000 29.7%

18. BRIEF DESCRIPTION OF MISHAP	19. ELEVATION AT TIME OF MISHAP
IMPACT WITH WATER	SEA LEVEL TERRAIN

20. LIST MODEL, BUNO, REPORTING CUSTODIAN AND DAMAGE CLASSIFICATION OF ANY OTHER A/C INVOLVED (Complete OPNAV Form 3750-1 for each A/C)
NOT APPLICABLE

SECTION B. CONTRIBUTING FACTORS

✓	FACTOR	✓	FACTOR	✓	FACTOR
X	1. PILOT ERROR IN TECHNIQUE/JUDGMENT		9. SERVICING PERSONNEL		17. WEATHER
	2. PILOT DEVIATION FROM NATOPS PROCEDURES		10. LANDING SIGNAL OFFICER		18. DESIGN AIRCRAFT
	3. PILOT INCORRECT OPERATION OF A/C SYSTEM		11. OTHER PERSONNEL (Specify)		19. DESIGN CREW EQUIPMENT
	4. PILOT OTHER (Specify)		12. ADMINISTRATIVE	X	20. DESIGN OTHER (Specify) RAWS/LACK OF (APN 141)
X	5. COPILOT/FLT ENGINEER CREW INATTENTION		13. FACILITIES-RUNWAY, OVERRUN TAXIWAY, FLIGHT DECK		21. ROLLING/PITCHING DECK ROUGH SEAS
	6. MAINTENANCE PERSONNEL		14. FACILITIES-NAV AIDS, LANDING AIDS (GCA, CCA, ILS, MIRROR)	X	22. MATERIAL FAILURE/MALFUNCTION
	7. MAINTENANCE SUPERVISORY PERSONNEL		15. FACILITIES-CATAPULT, ARRESTING GEAR (Ship or field)		23. UNDETERMINED
X	8. SUPERVISORY OTHER (Specify) PROFICIENCY/FATIGUE INATTENTION		16. FACILITIES OTHER (Specify)		24. OTHER (Specify)

SECTION C. PERSONNEL DATA

1. NAME (LAST, FIRST, & MIDDLE INITIAL)	2. RANK/RATE	3. FILE/SERVICE NO.	4. DESIGNATOR	5. BRANCH OF SERVICE	6. AGE	7. YEARS CAT. ZOA	8. BILLET	9. POSITION	10. INJURY CODE
PILOT (AT CONTROLS AT TIME OF MISHAP) (b) (6)	LCDR	(b) (6)	1310	USN	34	8½	PPC	PILOT	B
CO-PILOT (IDENTIFY & SUBMIT SEPARATE PAGE 1) CORBETT, FREDRICK L.	LT.	(b) (6)	1315	USNR	24	2	PP3P	COPILOT	L

PILOT EXPERIENCE IN HOURS

ITEM			ITEM		
11. ALL MODELS		3236.8	17. CV LANDINGS DAY/NIGHT	ALL	8 / 0
				IN MODEL	NA / NA
12. ALL MODELS IN LAST 12 MONTHS		531.7	18. FCLP LANDINGS LAST 6 MONTHS DAY/NIGHT	ALL	0 / 0
				IN MODEL	NA / NA
13. ALL MODELS IN LAST 3 MONTHS		197.5	19. INSTRUMENT HOURS LAST 3 MONTHS ACTUAL/SIMULATED	ALL	25.0 / 3.2
				IN MODEL	25.0 / 3.2
14. ALL SERIES THIS MODEL	A/C	723.1	20. NIGHT HOURS LAST 3 MONTHS	ALL	50.1
	OFT/CPT	NA / NA		IN MODEL	50.1
15. ALL SERIES THIS MODEL LAST 12 MONTHS	A/C	531.7	21. TOTAL HOURS IN JETS (if jet mishap) HELOS (if helo mishap)		n.a.
	OFT/CPT	NA / NA			
16. ALL SERIES THIS MODEL LAST 3 MONTHS	A/C	197.5	22. LAST PRIOR FLIGHT ALL SERIES THIS MODEL	DATE	4 APRIL 1968
	OFT/CPT	NA / NA		DURATION	6.0
23. DATE/GRADE LAST NATOPS STANDARDIZATION CHECK		6/22/67 QUAL	24. TYPE INSTRUMENT CARD		SPECIAL

OTHER PERS.

25. NAME (LAST, FIRST, & MIDDLE INITIAL)	26. DNA	27. RANK/RATE	28. BRANCH OF SERVICE	29. FILE/SERVICE NO.	30. UNIT	31. INJURY	32. BILLET	33. POSITION
STOLZ, ROBERT S.	X	LT	USN	(b) (6)	VP-6	L	NAV	NAV
(b) (6)		LTJG	USNR		VP-6	B	TACCO	TACCO
		AE3	USN		VP-6	B	JULIE	JULIE

See attached sheet # 1 for continuation

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PART I GENERAL

SECTION A. IDENTIFICATION

1. AIRCRAFT ACCIDENT BOARD APPOINTED BY	2. SERIAL NO.	3. DTG (LOCAL) OF MISHAP	4. MODEL AIRCRAFT	5. BUREAU NUMBER

6. TO: Commander, Naval Aviation Safety Center		9. LOCATION OF MISHAP		10. DAMAGE
7. VIA:	8.	11. TIME OF DAY	12. TIME IN FLIGHT	13. FLIGHT CODE
		14. CLEARED FROM:	TO:	
		15. TYPE CLEARANCE	16. AIRSPEED	17. A/C WEIGHT

18. BRIEF DESCRIPTION OF MISHAP

19. ELEVATION AT TIME OF MISHAP S.L. TERRAIN

20. LIST MODEL, BUNO, REPORTING CUSTODIAN AND DAMAGE CLASSIFICATION OF ANY OTHER A/C INVOLVED (Complete OPNAV Form 3750-1 for each A/C)

SECTION B. CONTRIBUTING FACTORS

✓	FACTOR	✓	FACTOR	✓	FACTOR
	1. PILOT ERROR IN TECHNIQUE/JUDGMENT		9. SERVICING PERSONNEL		17. WEATHER
	2. PILOT DEVIATION FROM NATOPS PROCEDURES		10. LANDING SIGNAL OFFICER		18. DESIGN AIRCRAFT
	3. PILOT INCORRECT OPERATION OF A/C SYSTEM		11. OTHER PERSONNEL (Specify)		19. DESIGN CREW EQUIPMENT
	4. PILOT OTHER (Specify)		12. ADMINISTRATIVE		20. DESIGN OTHER (Specify)
	5. CREW		13. FACILITIES-RUNWAY, OVERRUN TAXIWAY, FLIGHT DECK		21. ROLLING/PITCHING DECK ROUGH SEAS
	6. MAINTENANCE PERSONNEL		14. FACILITIES-NAV AIDS, LANDING AIDS (GCA, CCA, ILS, MIRROR)		22. MATERIAL FAILURE/MALFUNCTION
	7. MAINTENANCE SUPERVISORY PERSONNEL		15. FACILITIES-CATAPULT, ARRESTING GEAR (Ship or field)		23. UNDETERMINED
	8. SUPERVISORY OTHER (Specify)		16. FACILITIES OTHER (Specify)		24. OTHER (Specify)

1. NAME (LAST, FIRST, & MIDDLE INITIAL)	2. RANK/RATE	3. FILE/SERVICE NO.	4. DESIGNATOR	5. BRANCH OF SERVICE	6. AGE	7. YEARS IAP, DNA	8. BILLET	9. POSITION	10. INJURY CODE
PILOT (AT CONTROLS AT TIME OF MISHAP)									
CO-PILOT (IDENTIFY & SUBMIT SEPARATE PAGE 1) CORBETT, F.L.	LT	(b) (6)	1315	USN	25	2	PP3P NAV.OFF.	C/P	L

SECTION C. PERSONNEL DATA

PILOT EXPERIENCE IN HOURS

ITEM			ITEM		
11. ALL MODELS		908	17. CV LANDINGS DAY/NIGHT	ALL	12 / 0
				IN MODEL	NA
12. ALL MODELS IN LAST 12 MONTHS		511	18. FCLP LANDINGS LAST 6 MONTHS DAY/NIGHT	ALL	NA
				IN MODEL	
13. ALL MODELS IN LAST 3 MONTHS		229	19. INSTRUMENT HOURS LAST 3 MONTHS ACTUAL/SIMULATED	ALL	31 / 3
				IN MODEL	31 / 3
14. ALL SERIES THIS MODEL	A/C	612	20. NIGHT HOURS LAST 3 MONTHS	ALL	47
	OFT/CPT			IN MODEL	47
15. ALL SERIES THIS MODEL LAST 12 MONTHS	A/C	511	21. TOTAL HOURS IN JETS (if jet mishap) HELOS (if helo mishap)		NA
	OFT/CPT	0 / 0			
16. ALL SERIES THIS MODEL LAST 3 MONTHS	A/C	229	22. LAST PRIOR FLIGHT ALL SERIES THIS MODEL	DATE	4 APRIL, 1968
	OFT/CPT	0 / 0		DURATION	6.0
23. DATE/GRADE LAST NATOPS STANDARDIZATION CHECK		19 MARCH 1968/ UNQUAL	24. TYPE INSTRUMENT CARD		STANDARD

OTHER PERS.

25. NAME (LAST, FIRST, & MIDDLE INITIAL)	26. DNA	27. RANK/RATE	28. BRANCH OF SERVICE	29. FILE/SERVICE NO.	30. UNIT	31. INJURY	32. BILLET	33. POSITION

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AIRCRAFT ACCIDENT REPORT (OPNAV FORM 3750-1)

PART I, SECTION C, ITEM 25 (continued)

(b) (6) [redacted]	AXAN	USN	(b) (6) [redacted]	VP-6	B	OBS	JEZ
NORRIS, ROGER A.	ATR2	USN		VP-6	L	RADAR	FWD OBS
LEACH, BRUCE C.	AMS2	USN		VP-6	L	F/E	F/E
MCHALE, KENNETH P.	AX2	USN		VP-6	L	JEZ	AFT STA
POPLIN, LEROY (n)	AO3	USN		VP-6	L	ORD	ORD
FITZPATRICK, ROBERT W.	AN	USN		VP-6	L	RDO	RDO
HART, PAUL E.	AN	USN		VP-6	L	MECH	FLT STA

AIRCRAFT ACCIDENT REPORT (OPNAV FORM 3750-1) ATTACHED SHEET # 1

SPECIAL HANDLING IN ACCORDANCE WITH OPNAVINST 3750.6 (series)

AIRCRAFT ACCIDENT REPORT
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PART II MAINTENANCE, MATERIAL, AND FACILITIES DATA

A. A/C HISTORY

1. DATE OF MANUFACTURE	2. FLIGHT HRS. SINCE ACCEPTANCE	3. NO. OF PAR/OVERHAUL	4. MONTHS SINCE LAST PAR/OVERHAUL	5. FLT. HRS SINCE LAST PAR/OVERHAUL	6. LAST/PAR OVERHAUL ACTIVITY	7. TYPE OF LAST CHECK PERFORMED	8. FLIGHT HOURS SINCE LAST CHECK	9. DAYS SINCE LAST CHECK
12/19/63	4294.7	2	6½	541.3	NARF Alameda	(ODD) 1st CAL	507.9	105

B. ENGINE HISTORY

1. ENGINE MODEL	2. ENGINE SERIAL NUMBER	3. FLIGHT HRS. SINCE ACCEPTANCE	4. NUMBER OF OVERHAULS	5. WAS DIR. REQUESTED?	6. FLT. HRS. SINCE LAST OVERHAUL	7. LAST OVERHAUL ACTIVITY	8. TYPE OF LAST CHECK PERFORMED	9. FLIGHT HOURS SINCE LAST CHECK	10. DAYS SINCE LAST CHECK
(1)	- SEE								
(2)			ATTACHED						
(3)					SHEETS				
(4)							#2 AND #3 -		

C. COMPONENT HISTORY

1. COMPONENT INVOLVED NOMENCLATURE	2. MANUFACTURERS PART NUMBER	3. TOTAL HRS. ON PART	4. NO. OF OVER-HAULS	5. HOURS SINCE LAST OVERHAUL	6. OVERHAUL ACTIVITY	7. WAS DIR. REQUESTED?	8. SER. NO. FLR/AMPFLR
(1)							
(2)	- NOT						
(3)		APPLICABLE -					
(4)							

D. INCIDENTS & GROUND ACCIDENTS

1. PARTS REPAIRED		3. DIRECT MANHOURS INVOLVED	2. PARTS REPLACED	
PART NUMBER	NOMENCLATURE		PART NUMBER	NOMENCLATURE
- NOT APPLICABLE -				

E. ENGINE FAILURES

JET ENGINE FLAMEOUT (Include intentional securing to prevent engine damage)

AT TIME OF FLAMEOUT	1. ALTITUDE	2. IAS	3. RPM	4. EGT	5. MANEUVER AT TIME OF FLAMEOUT	6. FUEL FLOW	7. ATTITUDE
		- NOT					

8. G FORCES	9. RELIGHT ☐ ATTEMPTED ☐ ACCOMPLISHED	10. ALTITUDE	11. IAS	12. MAX EGT	13. FUEL CONTROL ☐ PRIMARY ☐ MANUAL	14. NO. RELIGHT ATTEMPTS
		APPLICABLE -				

INTENTIONAL SECURE	15. ENGINE SYMPTOMS	16. CAUSE OF SYMPTOMS

RECIPROCATING ENGINE FAILURE

17. ALTITUDE	18. IAS	19. ATTITUDE	20. RPM	21. MAP	22. TORQUE/BMEP	23. FUEL FLOW PRESSURE	24. OIL PRESSURE
	- NOT						

INTENTIONAL SECURE	25. ENGINE SYMPTOMS	26. CAUSE OF SYMPTOMS
	APPLICABLE -	

F. OTHER REPORT

IDENTIFY OTHER REPORTS CONCERNING THIS MISHAP

1. AMPFLR SERIAL NUMBER NA
2. DIR MESSAGE REQUEST DATE-TIME-GROUP NA . *Info NASC on DIR request. See para. 38 OPNAVINST P3750.6E*
3. OTHER Preliminary message, DTG 042125Z APR 68
4. Supplementary #1 message, DTG 050045Z APR 68
   Telephone Report NASC, DTG 050032Z APR 68

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G. SHIPS DATA

1. EQUIPMENT INVOLVED	2. PRESSURE SETTING	3. WIND OVER DECK	4. RELATIVE WIND	5. APPROACH/END SPEED
☐ CATAPULT ☐ ARRESTING GEAR				

6. MARK NUMBER	7. MODEL NUMBER	8. LOCATION ON SHIP	9. LAUNCHING BRIDLE AND BRIDLE ARRESTER

10. CATAPULT/ARRESTING GEAR BULLETINS OR NOMOGRAMS USED: SHIPS

11. This portion shall be completed whenever (1) an aircraft accident involves arresting gear barrier and/or barricade equipment, or (2) an aircraft accident involves malfunctioning of arresting gear barrier and/or barricade equipment. Incidents or routine damage to cables, weldings and other expendable equipment need not be reported herein. DATA

ENGAGED	12. DECK RUNOUT (FEET)	13. RAM TRAVEL (INCHES)	14. CONTROL VALVE SETTINGS: CONSTANT PRESSURE — DOME (P.S.I.)	14. CONTROL VALVE SETTINGS: CONSTANT PRESSURE — RATIO	14. CONTROL VALVE SETTINGS: CONSTANT RUN-OUT (NT. LBS.)	15. ACCUMULATOR PRESSURE (PSI)	16. COMMENTS (for cable failures specify no. landings and months in service)
DECK PENDANT				NOT			
DECK PENDANT							
BARRIER/BARRICADE					APPLICABLE		

H. DEPLOYMENT

FOR ACCIDENTS ABOARD CARRIERS (Complete on pilot)

1. DATE DEPLOYED CONUS	3. DAY HOURS/LANDINGS SINCE DEPLOYMENT	4. DAY HOURS/LANDING LAST 30 DAYS
2. NO. DAYS OPERATING PERIOD: - NOT APPLICABLE -		
5. INST. HOURS LOGGED SINCE DEPLOYMENT ACTUAL/SIMULATED	6. NIGHT HOURS/LANDINGS SINCE DEPLOYMENT	7. NIGHT HOURS/LANDINGS LAST 30 DAYS

I. WEATHER

WEATHER AT SCENE OF MISHAP

1. CEILING	2. VISIBILITY	3. RELATIVE WIND DIRECTION AND VELOCITY	4. TEMPERATURE RUNWAY	4. TEMPERATURE OUTSIDE AIR	5. DEW POINT	6. ALTIMETER SETTING
4000	5+	NA	NA	NA	NA	30.09

7. OTHER WEATHER CONDITIONS (Winds aloft, icing level, sea state, density altitude, as appropriate): Sea State 1, Surface Wind 015/07

PART III ADDITIONAL INFORMATION

PART	SECTION	ITEM	1. REMARKS	2. COPY DISTRIBUTION
			1 cc COMPATFORSEVENTHFLT	2 CC NAVAVNSAFECN DIRECT (AAR)
			1 cc COMSEVENTHFLT	1 CC BUWEPS DIRECT (AAR)
			1 cc CINCPACFLT	1cc COM NASC (Air-404)
				1cc COMFAIRWING TWO
				1cc COMFAIRWINGSPAC
				1cc COMNAVAIRPAC
				1cc NAVPLANTREPOLOCKHEED
				1cc CO NAVAL AEROSPACE RECOVERY FACILITY EL CENTRO

COST DAMAGE TO:	3. GOVERNMENT PROPERTY	4. PRIVATE PROPERTY	5. DATE SUBMITTED TO CO
		APPROX $ 240.00	23 APRIL 1968

PART IV SIGNATURES OF THE BOARD

1. SENIOR MEMBER: LCDR (b) (6) USN, Operations Off. (UNIT BILLET)

2. MEMBER: LCDR (b) (6) USN, Safety Officer (UNIT BILLET)

3. FLIGHT SURGEON MEMBER: LT (b) (6) USN (MC)

3. MEMBER: LCDR (b) (6) USN, Maintenance Off. (UNIT BILLET)

* When preparing Incident and Ground Accident reports, items indicated by an asterisk in ... considered appropriate should also be filled in.

4. (b) (6) LCDR (b) (6) USN, Natops Off.

5. Me (b) (6) LT (b) (6) USN, Flight Officer

PART V THE ACCIDENT

Patrol Squadron SIX temporarily based at the NAF Naha, Okinawa, published a flight schedule, which included P3A Bureau number 151350 side number PC-9 with crew 6A, LCDR (b) (6) /1310 PPC to fly a six hour ASW training flight on 5 April 1968. Take off time was to be 050001I. Enclosure 1a.

The Patrol Plane Commander LCDR (b) (6) USN filed his flight clearance form DD175, enclosure 1, and proceeded to his aircraft (PC-9) A preflight inspection was conducted and the engines started at approximately 052340I. A check of the Naha AB tower records showed that PC-9 took off at 052350I, Enclosure 2.

With LCDR (b) in the left seat and LT Fred Corbett (b) (6) /1315 in the right seat PC-9 proceeded as per the filed flight plan route to the operating area at 7000 feet. PC-9 arrived in the vicinity of 27-00N, 130-02E at 050025I to relieve PC-6, PPC LCDR (b) (6) and crew 5A. As PC-6 was engaged in a free play exercise with the U.S.S. Rock AG (SS)274, and 25 minutes remained until finex, LCDR (b) (6) requested that PC-9 wait this additional time to allow the completion of the exercise. This request being agreeable to LCDR (b) (6) he moved south approximately 15 to 20 miles and began to stabilize the aircrafts navigational ground plot in preparation for his first exercise. The plot stabilization was carried out at 700 feet and no malfunctions of the autopilot or any other system were noted. PC-9 reported on station to the U.S.S. Rock at 050052I and Comex of the exercise began at time 050105I, The position of the submarine and aircraft at Comex was 27-06N 130 02E, as listed in the records of the U.S.S. Rock. Enclosure 3b.

After Comex PC-9 retired to the North and returned to datum after a delay of 5 minutes (050110). The first sonobouy was placed North of datum, the second at datum, the third sonobouy was place south of datum. The aircraft them began a right hand turn to cross a position 3000 yards west of datum on a heading of 090 for the fourth sonobouy drop. On top of this intended position the sonobouy released malfunctioned so the aircraft continued 090° and crossing datum placed another sonobouy to the East of datum. A ninety two hundred seventy degree turn maneuver was accomplished to bring the aircraft over the eastern sonobouy on a heading of 270. The aircraft passed over the eastern sonobouy and on past the datum sonobouy and then dropped the fifth sonobouy west of datum as depicted in enclosure 3a. Information gained from these drops led the Tactical Coordinator to place the submarine to the Southwest of datum and he requested the Plane Commander to fly around the outside of the pattern for continuation of the problem.

After passing the western sonobouy the Plane Commander began a 27° angle of bank turn to port. This turn was shallowed out when the TACCO requested the aircraft to remain on the edge of the pattern. The exact angle of bank is uncertain at this time. It is at this point in time, approximately 050120I that PC-9 contacted the water. The weather in the exercise was not a factor. Enclosures 3 thru 8.

PART VI DAMAGE TO AIRCRAFT

The aircraft received ALFA damage as a result of impacting with the water. It sunk in an area of water depth greater than 1600 fathoms. The debris was originally confined to a rectangular area approximately 1000 yards wide and 3000 yards long, oriented with the long axis in an East-West direction. Wind and drift spread the debris to the Southwest.

The aircraft impacted in a slightly nose high attitude (estimated 3-6 degrees nose up) at a rate of descent estimated to be less than 200 feet per minute.

As the aircraft contacted the water, the tail section separated from the main fuselage in the area of the main cabin door. This was based on the indications of an upward driving force around the sono package, which was down at the time. It appears that the left wing and propellers next made contact due to the pattern of buckling on the main cabin door. However, the last minute rolling moment induced by the pilot as he attempted to level his wings caused the impact attitude to be virtually wings level. This is born out by the pattern of inertial forces on the decking and gear recovered. The deceleration of the wing was greater than that of the attached fuselage structure and the direction was parallel to longitudinal axis of the aircraft. This indicates the wing was torn away, carrying a considerable portion of the area above it with it, including the rails and seats at the tactical station. The fuselage continued to disintegrate as it fairly skipped across the water through the sheets of flaming fuel from the now ruptured fuel tanks. The survivors (and possibly others) were thrown clear ofthe wreckage during the disintegration. The entire evolution occured in the space of a few seconds.

The rate of descent and deck angle at impact were almost ideal for ditching. The airspeed at impact generated forces approximately 36 times those which would have been present at recommended ditching airspeed.

Small pieces of wreckage and articles of survival equipment were recovered by the U.S.S. Rock (AG(SS)-274) as indicated in enclosure 3 All three MK7 liferafts were recovered. One half of the survivors raft was inflated, one raft was fully inflated when picked up and one was floating, uninflated. Wreckage was recovered as late as the afternoon of 6 April by the USS REEVES (DLG-24) and Rock. Distribution of the wreckage in the water was as depicted in the track chart of Rock. The recovered wreckage was transported to the U.S. Naval Port Facility, White Beach, Okinawa by ROCK and turned over to members of the accident investigation board at 062300I April. It was further transported to Hangar 45-C at the Naval Air Facility, Naha, Okinawa. The pieces were arranged on the hangar deck to closely approximate their positions in the aircraft and the Accident Board began its investigation and analysis of them.

All pieces were subject to salt water immersion. There was no evidence of inflight fire or explosion. There was positive evidence of surface fire after the crash (enclosure 11) involving mostly the wreckage from forward of the main cabin door. The only external airframe section recovered was the main cabin door. It showed evidence of upward and inward compressive forces, starting in the lower front corner. The door hinge was intact, However, the upward force tore out a section of the area where the hinge was attached.

A structural shear panel recovered indicated a relatively slow rate of descent at impact. The recovered wreckage indicated a pattern of forward inertial forces, generally oriented along the longitudinal axis of the aircraft. There were indications of a hydraulic lifting force under the decking as the lower fuselage crushed and scooped up water. Other force patterns observed gave indications of the wing tearing loose as it entered the water.

Approximately 400 pounds of wreckage was recovered from a 67,000 pound basic weight aircraft. The majority was found on the surface during the daylight hours on 5 April. Very little debris came to the surface over the next two days.

Enclosure 10 shows the wreckage layout as assembled on the hangar deck. Most of the recovered parts were located between station 661 and the Aft pressure bulkhead. Enclosure 10 shows pieces by diagram location.

The wreckage will be held for final disposition as may be stipulated by higher authority.

Part VII The Investigation and Analysis

All statements and information gained during this investigation are believed to be creditable. (Enclosures 4 thru 8, 12, 13, 14, 15)

LCDR (b) had flown a VP/SS training flight the night prior to the accident during the same hours (0000-0600) and with the same exercise submarine. This previous flight was the first flight he had flown since 23 March. He and his crew had been in Hong Kong from 26 March to 2 April. They had not flown for a period of 11 days and this first flight was a midnight VP/SS training flight on 4 April. During this flight (night before accident) LCDR (b) had experienced some disorientation. It had been caused by the auto-pilot flashing warning light "Blinding" him and there was no outside visual reference. The impression made by the flashing light was quite vivid and LCDR (b) mention it several times in his statement and in conversation with others. He had mentioned that it took some time for him to re-establish his spatial orientation. The vivid impression made by the warning light may have well established a reference frame in his mind that with such a warning available, he would not be able to deviate from his chosen engaged altitude without this obvious warning. It is likely that he considered the auto-pilot flashing warning as a primary safety of flight instrument (when operating in an auto-pilot mode). Consequently, in the absence of the warning or its failure, he would not be as quick to note an altitude deviation.

Upon returning from this previous ASW flight (at 0600), the crew wasn't scheduled for another flight until 0800 the following day. They went to bed under this assumption. A schedule change was made to allow another crew to have the daylight period for a more difficult qualification exercise. This change moved Crew 6 (LCDR (b) up to another midnight takeoff. There were some bitter remarks made by several of the crew's Officers concerning the change, particularly when in their opinion they didn't need sub time since they had all the required qualifications, and had proven their proficiency just the night before. However, when reporting for the flight they appeared rested and in good spirits.

Pre-flight, taxi, take-off and flight enroute to operating area brought out several factors which may have indicated some frame of mind established prior to the crash. Playback of Naha Ground Control tape reveals a sleepy or groggy inflection in the Co-pilots voice. Of note was what sounds like a yawn while reading back the climb instructions. The aircraft was cleared to 5,000 feet initially and after take-off was cleared to 7,000 feet by the Center. After arriving on station to relieve the aircraft who was doing VP/SS exercises there were the standard relief communications. At this time the PPC of the aircraft being relieved (PC-06) noted that an apparent lack of usual vitality in the radio transmissions by the Co-pilotof PC-09, LT CORBETT. The bland radio comm. was not normal for LT CORBETT and unusual to the extent that the other aircrafts pilot commented on it. The evident lack of energy reflected in the Co-pilots UHF communications reflects either an apathetic attitude or some indication of incapacitation. No medical evidence was obtained to support the latter.

After arriving "on station" and establishing communications and visual contact with the other aircraft (PC-06) they learned that PC-06 would be involved in an exercise for about 30 minutes. So they proceeded to the south to stabilize their navigation ground plot.

During this plot stabilization LCDR (b) was intent in improving his MAD cloverleaf tactics as he believed he had become sloppy with this tactical maneuver. They decended to 700 feet, turned on their radar altimeters (pilot and co-pilot), checked the radar altimeters working and limit set at 500 feet. They also set maneuver flaps and held about 200 knots. LCDR (b) experimented with techniques to arrive over a reference point on various headings, using a set angle of bank. He determined that after crossing the reference smoke, he would remain wings level for about 10 seconds, then roll into a 27° left bank which worked out just right to return to this reference smoke on predetermined heading. The significance attached to this 27° angle of bank is that LCDR (b) refers to 27° often in his discussion. Also, his initial statments show him to believe he was in a 27° angle of bank just prior to water impact. This 27° was another factor which was firmly implanted in his mind and subsequent approach to the tactical problem. So much so that he entered this maneuver (27°) when the tactics being employed did not call for its use.

Transplant 6 completed his exercise, the sub came to communication depth and Transplant 9 gave his on station report. LTJG (b) (Tactical coordinator) (TACCO) also obtained a time check with the submarine, USS HOOK (AG(SS) -274). At time 0105 the aircraft marked on top of the sub and commenced a Julie(Julie training exercise). Aircraft configuration: Maneuver flaps, 190-200 KTS, 650 ft. altitude (both pressure and radar), radar altimeter working and limit set at 500 ft. autopilot engaged with barometric hold engaged and control wheel steering selected. The aircraft proceeded outbound to the Northeast and, after two minutes reversed course to recross the initial datum on a southerly course. At time 0110 the aircraft commenced dropping a Julie pattern, dropping sonobouys 1, 3, 5 on a south heading. (#3 being close to the original datum) LCDR (b) remembering his previous experiments of wings level, 27° angle of bank attempted to use this maneuver after making the last drop,."It suddenly dawned on me that's pretty stupid" (under drug interview). He then continued out to the west to return to the datum (#3) on an easterly heading. The Tacco (LTJG (b)) was going to "cross the T" intending to drop sonobouy #7 3000 yds. short (to the west) of datum. However, when he attempted to make the drop the sonobouy didn't drop due to a faulty circuit but the two quick attempts did fire two smoke markers at that position. The aircraft proceeded on across the datum and dropped sonobouy #9 to the east. A 90/270 degree turn starting to the right was executed and the aircraft returned over the datum heading west in order to replace the one sonobouy which had not released (#7). Information gained up to this point gave a suspected fix on the submarine to the southwest of datum. Continuing on to the west LCDR (b) saw two smoke markers and was about to stop a third from being placed at the same position.
"Bright as it is tonight, that's all I need is extra smokes".
(drugged recall). However just as he was about to say something he heard the smoke marker fire aling with sonobouy #7. After this drop he again was going to use the 10 sec wing level 27° bank. "27° left turn-hmm-why 27°? I learned a minute ago," (drugged recall)
He had mentally fixed the sub's position and was intending to return to the datum sonobouy in anticipation of the Tacco's directions. However the Tacco decided differently and told him to bomb the perimeter sonobouys. Two things are significant at this point: one that the 27° maneuver was not appropriate for the tactic and this realization could inject a confusion factor, another was his mental picture of where he was heading had changed, which also could produce a confusion factor. It should be noted that the aircraft at this time was less than one minute from crash, approximately 0119.

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The Tacco had said to go into a 3000 yard orbit around datum and bomb the perimeter sonobouys. The closest sonobouy they could fly to was #5 (the southern one) so LCDR (b) [redacted] shallowed his angle of bank. Since he had no reference in the cockpit to locate #5 (the GTP(ground track plotter) was off), the OTPI (on top position indicator) wasn't homing and there was no smoke light at #5 position, he was positioning the aircraft in an orbit using the smoke lite on #3 sonobouy as his reference. He was unable to recall his altitude, airspeed, angle of bank (accurately) vertical speed or radar altimeter reading at this point. It was evident from interviews, particularly the drug recall, that he was depending a great deal on the smoke markers to set up for the ensuing tactics. This time the aircraft was just seconds from crash. The co-pilot was talking to the Tacco over the ICS telling him there was no smoke on #5, that the OTPI wasn't homing and trying to decide how they could find it. The engineer was setting the sonobouy channel number for the OTPI. The pre-occupation of the co-pilot and engineer is significant because this was just seconds before water impact.

The next thing the pilot can recall is seeing the water immediately in front of him realizing he was going to impact. He recalls that his mind flashed, "but I didn't get an auto-pilot flashing warning light" and "why didn't get a radar altimeter warning flash?" He is certain his reflexes attempted to roll wings level, but the next thing he remembered was being pulled down in the water still in his seat. Wreckage investigation reveals that the aircraft did impact with nose slightly high 3-6°, slight left wing down and a low rate of decent (900 ft./min. or less). He released his quick disconnect, got free from the seat, but his shoulder straps were hung on something. He finally released the straps and made it to the surface, attibuting his scuba diving experience in helping him ascend from a relatively deep position without panic. The subsequent use of survival equipment and rescue by the USS ROCK is included in the enclosures.

1. Personnel factors

a. Pilot factors. LCDR (b) [redacted] is an experienced VP/Anti-submarine warfare pilot with ample P3 experience (enclosure 16). Several factors preceeding the accident are significant.

1. The auto-pilot flashing warning light, on the previous flight had implanted a vivid impression, partly because of its brightness and because of the resultant disorientation. He fully expected that flashing light to warn him if his altitude varied from the selected baro-hold. It should be noted that a baro-hold malfunction would not trigger the warning light and in fact could lose altitude (assuming a malfunction) without any auto-pilot warning indication. A degree of complacency was injected as a result of his impression concerning the warning light Had the baro-hold paddle switch been inadvertently disengaged, with control wheel steering selected, the aircraft could have easily descended without any auto-pilot light warning. This particular mode of operation is a normal one. It would have been possible for the engineer to have inadvertently bumped off the paddle switch when involved in making an OTPI selection.

Subsequent to the accident several aircraft were flown and tested to approximate any condition which may have existed as to auto-pilot operation. First, without the auto-pilot engaged it was noted that under normal control pressures the inherent aircraft stability would cause loss of only 200-300 feet of altitude before the increased airspeed would cause a climb oscillation. With the auto-pilot engaged, baro-hold off and control wheel steering used, the same altitude stability existed provided that no fore or aft pressure was applied to the control wheel. If any forward (nose down) force was applied, then that attitude (nose down descending) was maintained. It is likely that the latter mode existed at the time of inadvertent descent and impact.

The auto-pilot disengage buttons are located on both the pilot's and co-pilot's yokes. It is standard procedure for most pilots to keep their index finger very close to the button when flying at low altitude with the auto-pilot engaged. The reason for keeping the finger very close or in many cases riding lightly on the button is to enable an immediate disconnect in the event of a malfunction such as a pitch down. If the disconnect button was inadvertently actuated, the auto-pilot would disengage. There is no warning light which would tell the pilot that he (or the co-pilot) had disengaged the auto-pilot.

2. LCDR (b) determination to use a bank angle of 27° in order to recross reference points is considered a confusion factor. The initial and continuous reference to 27° indicates a pre-occupation with a particular maneuver. Where the confusion would arise is the maneuver wasn't applicable to the tactic, yet LCDR (b) initiated it twice, both occasions catching the error, but one of the times it was used within a minute of the crash. It is likely that the pre-occupation contributed to confusion or slight disorientation.

3. There was an established attitude of supreme confidence in the co-pilot's (LT CORBETT) sensitivity to low altitude flying. The PPC as well as the Tacco repeatedly commented on how LT CORBETT would always remind the pilot if he deviated, no matter how slight, from an established minimum altitude. It is apparent that LCDR (b) cannot believe that his co-pilot would allow him to decend below the briefed minimum 500 feet. Though the pilot must rely on his co-pilot as a safety monitor, the super faith LCDR (b) had in LT CORBETT's sensitivity to altitude may have allowed complacency to creep into his own scan of the altimeter.

4. The aircraft descended from a stated 650 feet into the water in apparent 1G maneuver. How the aircraft descended 650 feet without the pilot, co-pilot or engineer noting the descent or radar altimeter red warning light is the primary question. It must be assumed that either they were all incapacitated or had their attention directed elsewhere.

(a) Incapacitation is a possibility, but unfortunately there was no medical evidence obtained to support this possibility. Additionally none of the survivers mention any form of drowsiness or other incapacitating feature. However, evidence obtained in the various interviews and investigation indicated a certain drowsiness (lack of sharp perception) in both the pilot and co-pilot.

(b) Attention diversion. It has been established that the pilot was flying a pattern using an external reference (smoke lights) for probably 40 seconds prior to impact. The co-pilot was attempting to locate the next sonobouy by attempting to see it and by trying to get a homing signal. He also was engaged in an ICS conversation with the tactical coordinator just prior to the crash. The flight engineer though not a primary safety monitor usually watches altitude deviations and this engineer was no exception. However, he was also engaged in selecting a different channel on the OTPI. In one interview, LCDR (b) mentions that LEACH (the flight engineer) was possibly using his flashlight in order to see the channel selector accounting for a possible attention diversion. Also, if the engineer was using his flashlight, even with a red lens, it could nullify or reduce the effectiveness of a radar altimeter warning light.

(5) The P3 aircraft tends to breed complacency. It has an excellent autopilot which will hold a selected altitude. If the autopilot fails there are obvious warnings which tell the pilot of the failure (normally). Over-reliance on this system must be included as another possible contributory factor. LCDR (b) is convinced that he was flying with the autopilot engaged and maintaining altitude, yet it had either failed or had been inadvertently disengaged. Regardless of why the autopilot did not maintain the altitude the fact remains that the aircraft did descend without anyone realizing it. This fact supports the reliance and possible complacency concerning the aircraft and its "fail safe" systems.

(6) The P3 aircraft is a high performance aircraft. LCDR (b) has stated that most second tour VP aviators are "low performance" aviators (referring aircraft types rather than performance of pilots). He believes that it is most difficult for an aviator who is oriented to the "low and slow SP5 and SP2H to be mentally or psychologically prepared for the high performance characteristics of the P3. A pilot used to the "seat of the pants" feel from flying older type VP aircraft or even proficiency type recip. aircraft may not be quite prepared to step easily into an aircraft that essentially has no "feel" and can drop altitude rapidly and suddenly. It is not a direct contributing factor, but one note worthy of mention because it reflects LCDR (b) opionion. The board acknowledges this as a possible factor in aviation, but not considered as a prevalent factor. It is noteworthy that LCDR (b) apparently places himself into this category.

(7) A related factor to (6) above is the use of the flight engineer to make power corrections in order to maintain a specified airspeed. Though it is entirely acceptable for normal takeoff and cruise conditions there are some points to consider when operating in low altitude, ASW tactics. Since the P3 is a high performance aircraft, slight changes in angle of attack will vary airspeed and assuming the engineer is adjusting power, trim changes could well be masked. Additionally, a habit pattern of reliance on the engineer to maintain a given airspeed could allow the pilot's scan pattern to relax.

2. Supervisory Factors

This accident happens to fall into a near perfect category relative to the evident lack of supervisory error as a contributing factor. The pilot and crew were well trained and very proficient in ASW as evidenced by their current qualifications and recent performance. In addition to having just returned from seven days of liberty in Hong Kong they apparently had sufficient sleep prior to the flight. In all obvious respects they were ready to go.

a. The one supervisory factor which contributed, and had it been eliminated the accident may have been prevented, was the lack of RAWS (Radar Altitude Warning System) installation in the aircraft. Last year's Safety Synopsium recognized the necessity for RAWS and retro fit. This command urgently requested retro fit of RAWS prior to deployment (enclosure 17) but as of this date has no RAWS equipped aircraft.

b. "If there is any one controlling thing in safety and accident prevention, it is the attitude of the individual". In this difficult to gauge area a contributing factor may well have existed. It is time we stopped being oblivious to people as human beings and categorizing them with the rest of our military machines capable of maximum performance for unlimited periods of time.

Human factors kill more people in aviation than any other cause. Why? Attitude! Though this factor is often difficult to detect we must extend ourselves on all levels to uncover any instances of dissatisfaction and correct the situation. Research on the possible human factors and attitude in this instance back over the prior three months proves more than is initially evident. The operational tempo of flying for this period had been close to the limit possible for continuous operation. This particular crew averaged over 100 hours of flight time per month since January. During this period a rate of operations had been established that could be accepted as it was in support of their shipmates captured by the North Koreans. It could have been maintained that in time of national emergency or even for other operational type flying required in this area of the Pacific. However, in addition to the heavy tempo of operational flying there have been ASW training periods available. In order to peak up the crews ASW readiness, all submarine services were accepted. As these services were flown in addition to all operational commitments the stage was set for discontent. It is a known fact crews resent training flights when they are already working 12 out of every 14 days and in many cases they go for weeks without a true day off. Thus a possible poor attitude on the part of some or all the crewmembers may have been established.

C. This crew was not mentally prepared for a schedule change which put them in another midnight to 0600 flight, a most undesirable flying period. The schedule change was precipitated in order to put a crew who needed the more difficult qualification in the daylight period for which crew six was originally scheduled. Though the total rest time obtained between the flight appears adequate what is adequate rest between two midnight take-offs? Evidence reveals that drowsiness and lack of sharp perception contributed to the accident.

D. It is a prevalent attitude in VP aviation to never turn down offered submarine services. It is understandable that the attitude exists because Commanders desire a 100% ASW proficient unit as well as reaching the coveted "Alpha" status with all crews. There are times when the "can do" spirit goes beyond the capability of the "individuals" themselves and that is when an attitude conducive to carelessness and apathy creeps in. Occasionally some commanders become so intent on surpassing previous performance that the human factor is often subjected to more than can be absorbed and the resultant disinterest and "so what" attitude all too frequently ends in tragedy.

E. One other not so obvious supervisory area is pilot currency and proficiency. The accident occurred on a flight which originated less than 24 hours after completing a similar night flight on 4 April. Prior to the 4 April flight the pilot had not flown for eleven days. The question of whether or not a pilot is current involves more than a simple analysis of when he last flew and what type flight it was. In general, no one other than the pilot himself can judge the other factors. As for the time between flights, perhaps it is indicative that LCDR (b) [redacted] had felt very uncomfortable during his flight from midnight to 0600 on the 4th. He admits to several periods of disorientation and was very upset and impressed by the autopilot flashing warning lights which had illuminated during the last ten minutes of the on-station time. The true significance in this case may have evidenced itself within 20 minutes after crew 6 Comexed their first exercise on 5 April 1968. After only one hour and thirty-one minutes of flight time, during an exercise which the crew aboard had performed several times in the recent past, the aircraft impacted with the water.

The recollections of the pilot are well-documented elsewhere in this report. His main concern just prior to impact apparently centered not on his primary flight instruments, but on the warning systems designed to prevent the very thing which was occurring. In a situation where life and death was evidently at stake, a very experienced ASW pilot was in a situation from which he could not safely recover. It must be assumed that some factor involving the pilot's recent experience and/or the lack of same contributed to this accident. The evaluation of pilot proficiency and training also involves self evaluation. A very intelligent analysis by LCDR (b) appears in enclosure 4d to this report. Some thought-provoking facts are brought forth. All aviation supervisory personnel would do well to make a critical evaluation of their areas of responsibility. The contribution of the proficiency and training factor in this accident is considered very probable.

3. Material Factors

a. There are various modes of operation of the PB-20N, Automatic Flight Control System (AFCS) and three similar channels operate the control surfaces on the P-3A during flight with the AFCS switch in the ENGAGE position. The elevator channel controls the attitude and sometimes altitude of the aircraft, depending on the mode selected. LCDR (b) indicated the mode of operation as: AFCS engaged, Baro Hold selected and control wheel steering selected. Aircraft configuration was with maneuver flaps extended. This discussion assumes all these conditions prevailed at water impact.

A possible misconception should be cleared up in that the auto-pilot/radar altm. warning lights located on the pilot's and the co-pilot's glare shield will not illuminate merely because of excessive altitude deviations while operating with Baro-Hold selected for altitude control.

It is conceivable that an improper signal or the lack of a proper one within the altitude control circuitry at some point during the exercise would allow the aircraft to descend from the 500-600 feet altitude to the water with no warning from the auto-pilot. The lack of an appropriate nose-up signal from the versine circuit to compensate for loss of lift in a bank is an obvious example. Other possibilities exist.

Any bank angle above 45° exceeds the AFCS' capability to maintain the aircraft's altitude resulting in loss of altitude with no further corrective action taken by the pilot.

Either or both of the cited situations could have been contributing factors. The lack of proper control signals is probably remote considering the built-in reliability and warning circuits. Exceeding the capabilities of the system is always a possibility when some degree of disorientation or preoccupation is present. Descent under one or more of these conditions is considered a possible cause factor.

b. Regardless of the conditions which brought about descent to water level the APN-117 Radar Altimeter also has a built-in visual warning system. Once the indicator pointer is set at a given altitude (500 feet in this case), descent to a lower altitude automatically lights a red warning light on the indicator. The standard warning light cover for the indicator light can be dimmed and, whether dimmed or set bright, the lens is only approximately on-quarter of an inch in diameter. A replacement light cover is available and in use which is non-dimming and completely translucent. Since there is no way to determine for sure which type cover was installed in the aircraft, it is reasonable to assume it was the standard, dimming type. Whether it was set to the bright position or not, it is considered an inadequate warning and, therefore, contributing factor.

4. NATOPS NATOPS requirements or procedures were not a factor in this accident.

PART VIII - CONCLUSIONS

A. The positive cause of this accident remains unknown.

1. The most probable primary cause was pilot attention or fixation outside the cockpit. He was attempting to position the aircraft in a tactical pattern without cockpit/instrument references. It was necessary for him to position the aircraft relative to fixed reference (the smoke light on the datum sonobouy). It is apparent that he had not noticed any altitude deviation until just before impact. Contributing to the pilot's inattention may well have been lack of proficiency and lack of adequate rest.

2. Also contributing was attention diversion or inattention by the co-pilot. It must be assumed that the co-pilot was involved in some other duties which detracted from his primary responsibility as safety observer.

3. Another contributing factor may well have been partial or complete auto-pilot failure or inadvertant disconnect with accompanying failure of the warning light system.

4. Contributing also may have been malfunction of the radar altimeter and/or warning light. The APN-117 radar altimeter system has been notoriously unreliable, both from the design and maintenance standpoint. In the event of its failure there is no warning indication and, in fact it has been known to present erroneous altitude information. The location of the warning light is inadequate because it is not within the scan pattern and particularly out of the scan if the pilot is using an external visual reference, which is often the case in ASW flying. Had the RAWS been installed, the visual warning would have been much more pronounced and noticable because of its location. It would have also provided an aural warning, which in this case may well have prevented the accident.

5. Another contributing factor was that the pilot flew two midnight flights, back to back, after returning from a trip and not having flown for eleven days. Night ASW flying is not comfortable for even those who are current, much less someone whose proficiency may well have decreased from a layoff. During the first flight after the off period the pilot admittedly felt uncomfortable and during the closing minutes of his on-station time became disoriented. The disorientation by a normal warning light is attributed to degradation of his proficiency because of the time period since the last flight. It is significant to note that the night of the accident, he was not more than 20 minutes into the ASW problem when the altitude loss and crash occurred.

IX RECOMMENDATIONS

1. Recommend that the RAWS/APN 141 Radar Altimeter be retro-fitted into all P3A aircraft as soon as possible. The cost of just one lost P3 aircraft, not to even mention human lives, would more than pay for enough RAWS to install in all P3 aircraft.

2. Recommend a recoverable inflight recorder be installed in all P3 aircraft to record significant flight parameters for reconstruction of disasters.

3. Recommend the standard warning light cover used with the APN 117 Radar Altimeter Indicator be removed from service and replaced with an all-around glowing light cover. Consideration should be given to locating warning lights on the instrument panels within the pilot's and co-pilot's normal instrument scan.

4. Recommend that an aural warning or notification system be installed to inform the pilot when the auto-pilot disengages. A normal disconnect could trigger a short term sound while an abnormal disconnect or failure would sound a long term warning.

5. Recommend that pilots of P3 aircraft direct or set specific power settings to maintain a safe airspeed "range" in lieu of directing a specific airspeed to be maintained by the engineer when operating at low altitudes.

6. Recommend that realistic and compulsory guidelines be established for the various Naval Aviation Units so aimed as to eliminate fatigue as a contributory factor in accidents such as the one dealt with in this report.

7. Recommend that all levels of supervision within the Naval Establishment instigate and adhere to a more stringent program of pilot training and proficiency. The program should include positive monitoring of plane commander currency and progress at all times as the ultimate goal. This program should have priority over all other commitments except direct support of the defense of national security.

CHRONOLOGICAL NARRATIVE

0052 TRANSPLANT NINE reported on station for Event 12 from 0100-0500. 10 hours duration, 12 souls onboard. Reported would be using MK 57s set deep and MK 64s set shallow. Conduct A-32-UP. FINEX to be COMEX plus 75 or when attack signal is heard. SUBMISS-SUBSINK will be initiated at FINEX plus 60 minutes if no word from you.

0105 At depth 63 feet on course 000. COMEX A-32-UP at posit 27-06N, 130-02E. Changed depth to 150 feet.

0107 Changed course to 270.

0110 Heard PDC.

0112 Heard PDC.

0114 Heard PDC close aboard.

0118 Heard PDC.

0120 Heard PDC. Changed course to 210, changed speed to 6 knots.

0124 Changed speed to 3 knots.

0152 Changed course to 090.

0200 Heard PDC, distant.

0218 Changed depth to 90 feet. Changed course to 070.

0220 FINEX A-32-U. No attack made. Changed depth to 63 feet. No communications with TRANSPLANT NINE.

0223 Changed speed to 4.5 knots.

0225 Changed speed to 3 knots.

0227 Changed course to 090.

0240 Held visual surface contact through periscope bearing 040. Hold starboard side light, masthead light and range light, angle on the bow starboard 20, course 200, speed about 10 knots. Left full rudder, changed course to 330 to stay clear of visual contact. Changed speed to 6 knots. Still no communications with TRANSPLANT NINE.

0252 Surfaced, speed 5 knots.

0257 Changed course to 150. This put merchant on our port side and we crossed his track ahead of him.

0259 Changed speed to 10 knots.

0300 Sighted strobe light bearing 185. Changed course to 185 to investigate.

ENCLOSURE

0305 Changed speed to 14 knots.

0310 Sighted red flares ahead bearing 193. Changed course to head toward. Rang General Alarm. Called away the Man Overboard Party. Brought search lights, divers lights, spotlights, battle lanterns, and flashlights to the bridge. After sighting flares ahead, the merchant was off our starboard side about 095 relative. The Quartermaster of the Watch tried to establish communications with the merchant and did. We asked if the merchant had picked up any survivors. The merchant tangoed for the message but never answered. The flashing light was then used for illumination for rescue.

0319 Sighted raft in water with four men aboard.

0321 Alongside liferaft. Merchang ship bearing about 190, range about 10,000 yards, showing stern aspect.

0325 Have all four aboard. Have liferaft aboard. The survivors are:
LCDR (b) (6) , USN, (b) (6)
LTJG (b) (6) , USN, (b) (6)
AD3 (b) (6) , USN, (b) (6)
AXAN (b) (6) USN, (b) (6)
Attempted to contact Okinawa Control on 2715 KHZ - no answer.

0332 Attempting to contact merchant via flashing light. Changed course to the right and the merchant was bearing about 190 and again tried to contact by flashing ligh. Again, we could not establish communications and the light was needed for illumination. About five minutes later the merchant was steaming over the horizon. The merchant did appear for awhile to be searching for survivors.
Changed speed to 5 knots to continue search for survivors.

0335 Came around to the north-northeast and searched vicinity up wind about one mile from pickup point.

0345 Came around towards south to search downwind of pickup point.

0355 Secured engines. Answering bells on the battery to listen for survivors while searching. Continued toward south.

0403 TOD of initial SAR Incident Message. ROCK DTG 041838Z.

0404 Attempted to contact SAR Area Commanders on 3310 KHZ, 10900 KHZ.

0412 Pick up point bears 013, 2,700 yards (from DRT). Changed course to 270.

0415 Attempted to contact the 313th Air Division, Okinawa on 3310 KHZ - no answer.

ENCLOSURE

0417 Pick up point bears 030, 4,300 yards (from DRT). Conducting an east west search 2 miles south, downwind, from pickup point.

0424 Hold aircraft bearing 090, passed overhead. Attempting communications.

0427 Established UHF communication with aircraft. Identified as TRANSPLANT SEVEN on station to relieve TRANSPLANT NINE. A/C was informed TRANSPLANT NINE was in the water and that ROCK had picked up four survivors and had initiated SAR. Requested TRANSPLANT SEVEN drop flares in area to aid in search. TRANSPLANT SEVEN reported none onboard but would conduct searchlight sweeps of area. Requested TRANSPLANT SEVE to notify HOMEPLATE of incident and request search aircraft with flares.

0435 Attempted to contact the 313th Air Division, Okinawa on 10,900 KHZ - no answer.

0444 Changed course to 013 returning to vicinity of pickup point.

0505 Pickup point bears 260, 1200 yards.

0507 Changed course to 220 to pass through pickup point.

0513 Sighted red object in water. Maneuvered to pick up lifejacket.

0516 Retrieved lifejacket.

0540 TRANSPLANT SEVEN commenced marking with floats on objects and debris to be investigated.

0618 Picked up emergency radio package with chute attached and deployed. Maneuvered in this general vicinity to the west of reconstructed pickup point. This area was the area of heaviest concentration of debris and was about 1½ miles square. Commenced picking up various pieces of debris.

0630 Established communications with SAR Aircraft Rescue 17192. Rescue 192 and TRANSPLANT SEVEN both marked and directed ROCK to areas and debris to be investigated.

0800 Changed course to 210 to head to the south 3½ miles to the vicinity where a raft had been sighted and marked by aircraft.

0907 Raft recovered - additional debris in the area.

0912 Changed course toward the north to head back towards vicinity of pickup point. Continued picking up debris along the way.

1030 Helicopter CHECKERTAIL 41 arrived in area to pickup survivors from ROCK.

ENCLOSURE

1050 AXAN (b) (6), USN, (b) (6) was transferred to helo. Helo was low on fuel and decided to land on USS REEVES (DLG 24), which was arriving in the area, to effect transfer of the remaining survivors. ROCK proceeding to rendevous with USS REEVES to effect transfers.

1142 Commenced transferring remaining survivors via small boat. Completed transferring LCDR (b) (6) USN, (b) (6), LTJG (b) (6), USN, (b) (6) and AD3 (b) (6) (b) (6), to the USS REEVES. ROCK returning to the search area. REEVES enroute to Buckner Bay to debark survivors.

1240 Commenced an expanding sector search from the pickup point south. Recovering various pieces of debris.

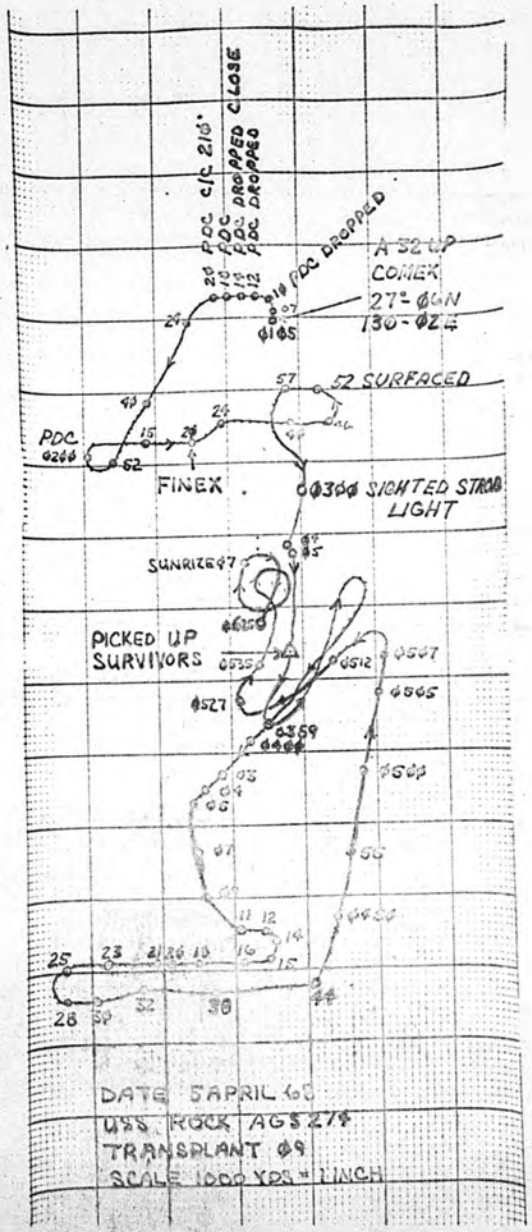
1900 USS SURFBIRD (ADG 383) arrived on the scene to join in search. Given station 270, 2,000 yards from ROCK.

1923 Returning to the pickup point to recommence the expanding sector search to the south. SURFBIRD recovered some pieces of insulation during the night.

0655 TRANSPLANT TWO arrived on the scene to assist in the search. ROCK and SURFBIRD commenced collecting debris as spotted by TRANSPLANT TWO.

1200 Terminated SAR operations. SURFBIRD transferred debris to ROCK via small boat. SURFBIRD released to proceed on duty assigned. ROCK commenced transit to Buckner Bay, Okinawa, ETA 060300Z.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 (series)



ENCLOSURE ( )

RESCUE REPORT
OPNAV FORM 3750-13 (3-63)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST P3750.6E
INSTRUCTIONS: SEE REVERSE

OPNAV REPORT SYMBOL 3750-14

1. FROM: COMMANDING OFFICER USS ROCK (AGSS 274)

2. DATE OF MISHAP: 5 APR 1968

2A. DATE OF RESCUE: 5 APR 1968

3. LOCATION AND DUTIES OF RESCUE VEHICLE: Providing Services to Aircraft Vic 27-05N, 130-00E

4. RESCUE VEHICLE (Type/model): (AGSS274)

5. NUMBER OF PERSONNEL	5A. IN RESCUE VEHICLE OR ON RESCUE TEAM	5B. TO BE RESCUED	5C. RESCUED
	9	4	4

6. RESCUE BACK UP MEANS: SAR Aircraft

7. TIME SEQUENCE OF EVENTS (Local Date Time Group)

7A. Alert Received: 0300	Method: Sighted strobe light upon surfacing
7B. Vehicle Dispatched	Distance to Scene
7C. Arrived on Scene: 0300	Search Required: Sighted strobe light
7D. Located Survivors: 0300	Method of Locating: Red flares about 2 miles
7E. Began Retrieval: 0321	That Was Sighted First: Liferaft alongside
7F. Ended Retrieval: 0324	Subsequently
7G. Survivor(s) Disembarked: 1200	Location (If different from Item 3): Survivors transferred to (DLG 24) FFT KWE Army Hospital, Okinawa

8. WEATHER CONDITIONS AT RESCUE SITE

8A. WATER TEMPERATURE	AIR TEMPERATURE	WIND VELOCITY
65-68 °F	67 °F	4-7 Knots

8B. SEA STATE/WAVE HEIGHT/FREQUENCY; TERRAIN DESCRIPTION: Sea state 1

9. EQUIPMENTS ACTUALLY USED DURING RESCUE: Heaving Line, Swimmers

10. DIFFICULTIES ENCOUNTERED (List all difficulties and effect on final outcome of rescue attempt, i.e., ALERTING PERIOD, SEARCH/LOCATING, RETRIEVING, POST-RETRIEVAL)

None

11. PERSONNEL REQUIRING RESCUE NAME-LAST FIRST INITIAL	GIVE REASON FOR RESCUE	FACTORS COMPLICATING RESCUE ATTEMPT (Physical condition, ignorance of equipment, sea state, etc.)
(b) (6) [redacted]	P-3 Aircraft crashed	(b) (6) [redacted]
	P-3 Aircraft crashed	
	P-3 Aircraft crashed	
	P-3 Aircraft crashed	

12. REMARKS: (Training of rescue team or crews, communication equipments/techniques, retrieval equipments/techniques, rescue vehicle)

Rescue of survivors/team USS ROCK. Drilled weekly man overboard.

13. ATTACH ENCLOSURES: Narratives of search, location and retrieving—Survivor's statements

14. NAME AND TITLE OF SUBMITTING OFFICIAL: T. F. ARNOLD, LCDR, USN, Executive Officer, By direction

SIGNATURE OF SUBMITTING OFFICIAL

15. NAME AND TITLE OF FORWARDING OFFICIAL

SIGNATURE OF FORWARDING OFFICIAL

OP-95F

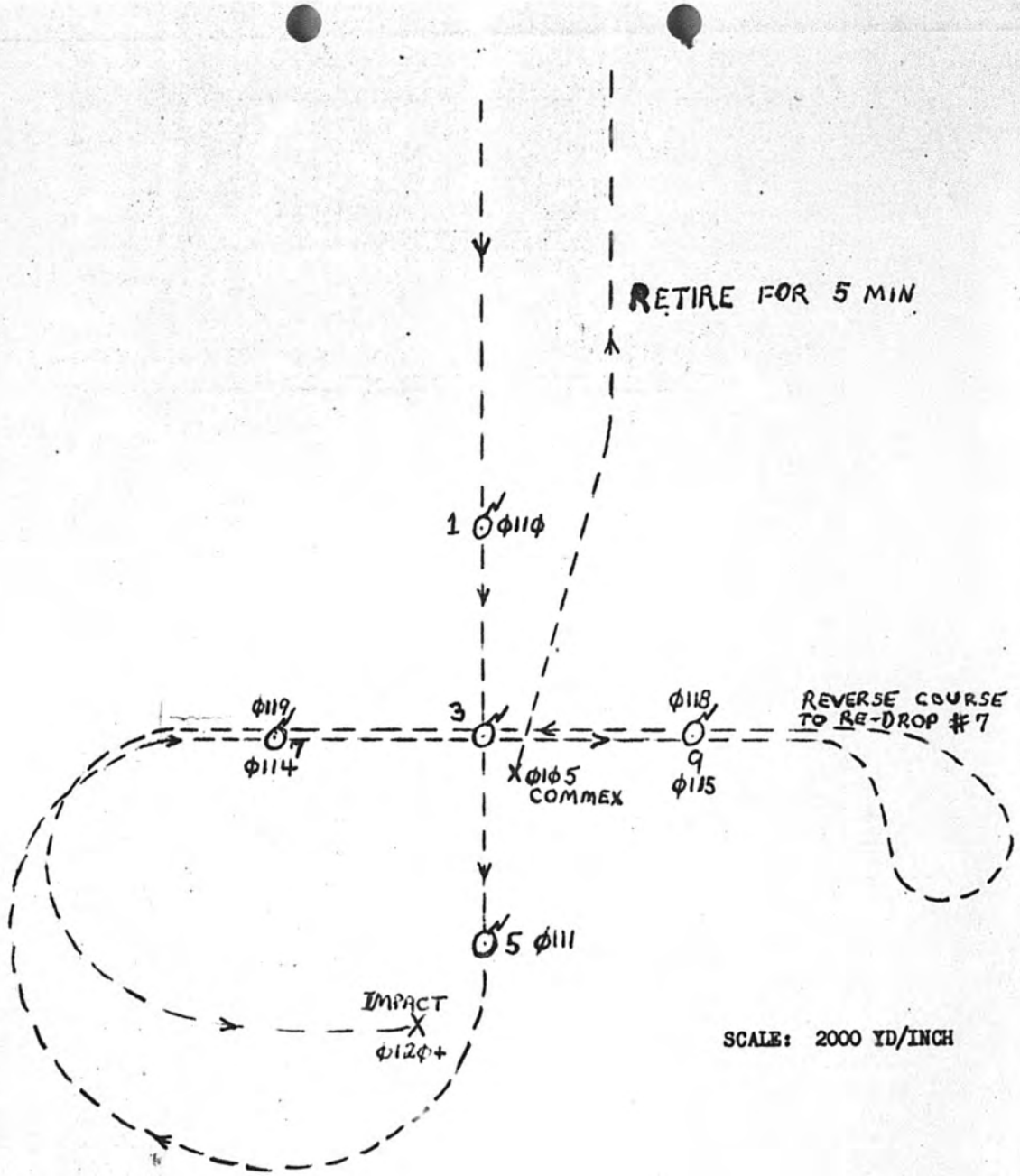
SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAV INSTR 3750.6 (Series)

ENCLOSURE

PATRON SIX
MOR 1-68
P3A BUNO 151350

ENCLOSURE (4)

DIAGRAM OF FLIGHT PATH

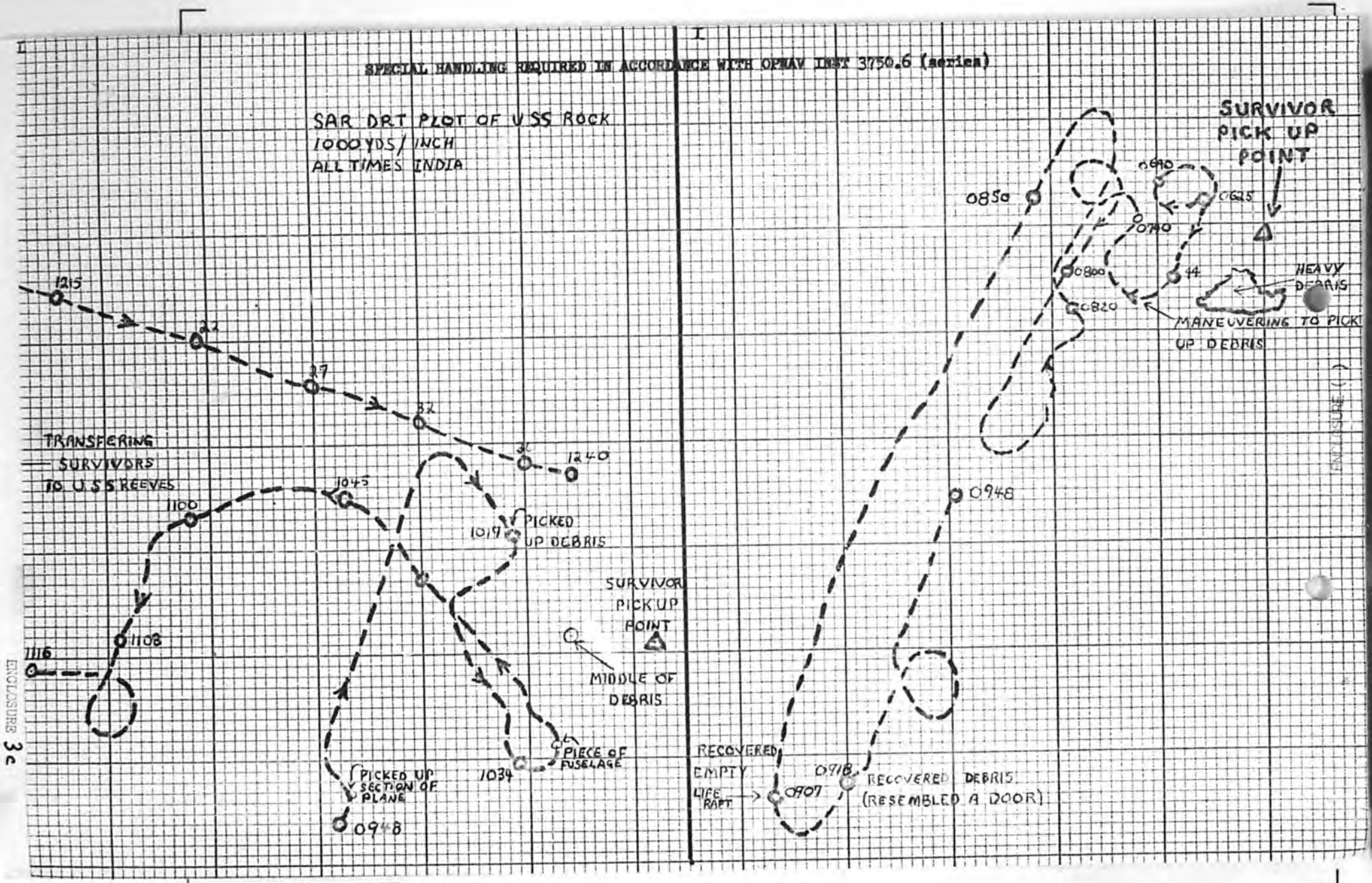


SUSPECTED TRACK OF P3A BUNO 151350
DURING EXERCISE WITH "ROCK"

SPECIAL HANDLING IN ACCORDANCE WITH OPNAVINST 3750.6 (Series)

ENCLOSURE ( )

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAV INST 3750.6 (series)



ENCLOSURE 3c

ENCLOSURE (1)